$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

and, $\bar{x}$ is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

Or,

(ii) The upper 95 percent confidence limit (UCL) of the true mean divided by 1.05, where:

$$UCL = \bar{x} + t_{.95}\left(\frac{s}{\sqrt{n}}\right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.95}$ is the t statistic for a 95% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

(b) *Certification reports.* (1) The requirements of § 429.12 are applicable to faucets; and

(2) Pursuant to § 429.12(b)(13), a certification report shall include the following public product-specific information: The maximum water use in gallons per minute (gpm) or, in the case of metering faucets, gallons per cycle (gal/cycle) for each faucet and the flow water pressure in pounds per square inch (psi).

[76 FR 12451, Mar. 7, 2011; 76 FR 24771, May 2, 2011]

§ 429.29 Showerheads.

(a) *Sampling plan for selection of units for testing.* (1) The requirements of § 429.11 are applicable to showerheads; and

(2) For each basic model of a showerhead, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of water consumption of a basic model for which consumers favor lower values shall be greater than or equal to the higher of:

(i) The mean of the sample, where:

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

and, $\bar{x}$ is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

Or,

(ii) The upper 95 percent confidence limit (UCL) of the true mean divided by 1.05, where:

$$UCL = \bar{x} + t_{.95}\left(\frac{s}{\sqrt{n}}\right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.95}$ is the t statistic for a 95% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

(b) *Certification reports.* (1) The requirements of § 429.12 are applicable to showerheads; and

(2) Pursuant to § 429.12(b)(13), a certification report shall include the following public product-specific information: The maximum water use in gallons per minute (gpm) and the maximum flow water pressure in pounds per square inch (psi).

(3) Pursuant to § 429.12(b)(13), a certification report shall include the following additional product-specific information: A declaration that the showerhead meets the requirements of ASME/ANSI A112.18.1M–1996, 7.4.4(a).

[76 FR 12451, Mar. 7, 2011; 76 FR 24771, May 2, 2011]

§ 429.30 Water closets.

(a) *Sampling plan for selection of units for testing.* (1) The requirements of § 429.11 are applicable to water closets; and

(2) For each basic model of water closet, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of water consumption of a basic model for which consumers favor lower values shall be greater than or equal to the higher of:

(i) The mean of the sample, where:

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

and, $\bar{x}$ is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

Or,

(ii) The upper 90 percent confidence limit (UCL) of the true mean divided by 1.1, where:

$$UCL = \bar{x} + t_{.90}\left(\frac{s}{\sqrt{n}}\right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the t statistic for a 90% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).